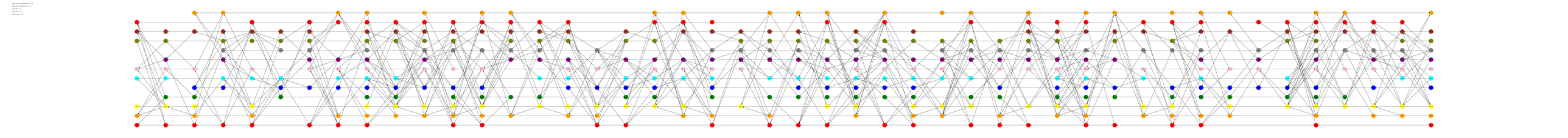

A

1

,

1

B

1

,

1

C

1

,

1

F

1

,

1

G

1

,

1

J

1

,

1

K

1

,

1

L

1

,

1

A

2

,

2

C

2

,

2

D

2

,

1

F

2

,

2

G

2

,

2

H

2

,

1

J

2

,

2

K

2

,

2

A

3

,

3

B

3

,

2

C

3

,

3

D

3

,

2

E

3

,

1

G

3

,

3

K

3

,

3

M

3

,

1

A

4

,

4

E

4

,

2

F

4

,

3

H

4

,

2 I4, 1 J4, 3 K4, 4 M4, 2

A

5

,

5

B

5

,

3

C

5

,

4

F

5

,

4

G

5

,

4

J

5

,

4

K

5

,

5

L

5

,

2

D

6

,

3

E

6

,

3

F

6

,

5 I6, 2 J6, 5 K6, 6
A

7

,

6

E

7

,

4

G

7

,

5

H

7

,

3 I7, 3 J7, 6 K7, 7 L7, 3

A

8

,

7

B

8

,

4

E

8

,

5

F

8

,

6

G

8

,

6

H

8

,

4

L

8

,

4

M

8

,

3

A

9

,

8

B

9

,

5

C

9

,

5

D

9

,

4

E

9

,

6

F

9

,

7

G

9

,

7

H

9

,

5 I9, 4 J9, 7 K9, 8 L9, 5 M9, 4
B

1

0

,

6

C

1

0

,

6

D

1

0

,

5

E

1

0

,

7

F

1

0

,

8

J

1

0

,

8

K

1

0

,

9

L

1

0

,

6

B

1

1

,

7

C

1

1

,

7

E

1

1

,

8

G

1

1

,

8

H

1

1

,

6 I11, 5 J11, 9 K11, 10 L11, 7 M11, 5

A

1

2

,

9

B

1

2

,

8

C

1

2

,

8

D

1

2

,

6

E

1

2

,

9

G

1

2

,

9 I12, 6

J

1

2

,

1

0

K

1

2

,

1

1

L

1

2

,

8

A

1

3

,

1

0

B

1

3

,

9

C

1

3

,

9

D

1

3

,

7

E

1

3

,

1

0

G

1

3

,

1

0 I13, 7 K13, 12 L13, 9 M13, 6
B

1

4

,

1

0

D

1

4

,

8

H

1

4

,

7 I14, 8

J

1

4

,

1

1

K

1

4

,

1

3

L

1

4

,

1

0

M

1

4

,

7

C

1

5

,

1

0

D

1

5

,

9

F

1

5

,

9

H

1

5

,

8 I15, 9

J

1

5

,

1

2

K

1

5

,

1

4

L

1

5

,

1

1

B

1

6

,

1

1

C

1

6

,

1

1

E

1

6

,

1

1

F

1

6

,

1

0

G

1

6

,

1

1

H

1

6

,

9

J

1

6

,

1

3

K

1

6

,

1

5

L

1

6

,

1

2

A

1

7

,

1

1

B

1

7

,

1

2

C

1

7

,

1

2

E

1

7

,

1

2

G

1

7

,

1

2 I17, 10

A

1

8

,

1

2

C

1

8

,

1

3

D

1

8

,

1

0

E

1

8

,

1

3

F

1

8

,

1

1

H

1

8

,

1

0

J

1

8

,

1

4

K

1

8

,

1

6

C

1

9

,

1

4

D

1

9

,

1

1

E

1

9

,

1

4

F

1

9

,

1

2

G

1

9

,

1

3

H

1

9

,

1

1

J

1

9

,

1

5

L

1

9

,

1

3

M

1

9

,

8

B

2

0

,

1

3

C

2

0

,

1

5

F

2

0

,

1

3

G

2

0

,

1

4

H

2

0

,

1

2

K

2

0

,

1

7

L

2

0

,

1

4

M

2

0

,

9

A

2

1

,

1

3

B

2

1

,

1

4

D

2

1

,

1

2

E

2

1

,

1

5

F

2

1

,

1

4

G

2

1

,

1

5

H

2

1

,

1

3 I21, 11 K21, 18 L21, 15
C

2

2

,

1

6

G

2

2

,

1

6

H

2

2

,

1

4 I22, 12 J22, 16 K22, 19

A

2

3

,

1

4

B

2

3

,

1

5

D

2

3

,

1

3

F

2

3

,

1

5

H

2

3

,

1

5 I23, 13 J23, 17 K23, 20 M23, 10

A

2

4

,

1

5

D

2

4

,

1

4

E

2

4

,

1

6

F

2

4

,

1

6

H

2

4

,

1

6 I24, 14 J24, 18 K24, 21 M24, 11

A

2

5

,

1

6

C

2

5

,

1

7

D

2

5

,

1

5

E

2

5

,

1

7

F

2

5

,

1

7

G

2

5

,

1

7

H

2

5

,

1

7

J

2

5

,

1

9

L

2

5

,

1

6

M

2

5

,

1

2

B

2

6

,

1

6

C

2

6

,

1

8

D

2

6

,

1

6

E

2

6

,

1

8

F

2

6

,

1

8

G

2

6

,

1

8

H

2

6

,

1

8 I26, 15 J26, 20 K26, 22

A

2

7

,

1

7

D

2

7

,

1

7

E

2

7

,

1

9

F

2

7

,

1

9

G

2

7

,

1

9

H

2

7

,

1

9 I27, 16 J27, 21 L27, 17 M27, 13

A

2

8

,

1

8

B

2

8

,

1

7

C

2

8

,

1

9

D

2

8

,

1

8

E

2

8

,

2

0

F

2

8

,

2

0

G

2

8

,

2

0

H

2

8

,

2

0

J

2

8

,

2

2

K

2

8

,

2

3

B

2

9

,

1

8

C

2

9

,

2

0

F

2

9

,

2

1

G

2

9

,

2

1

H

2

9

,

2

1 I29, 17 J29, 23 M29, 14

A

3

0

,

1

9

C

3

0

,

2

1

D

3

0

,

1

9

F

3

0

,

2

2

H

3

0

,

2

2 I30, 18 J30, 24 L30, 18 M30, 15

A

3

1

,

2

0

B

3

1

,

1

9

D

3

1

,

2

0

E

3

1

,

2

1

G

3

1

,

2

2

H

3

1

,

2

3 I31, 19 J31, 25

A

3

2

,

2

1

C

3

2

,

2

2

G

3

2

,

2

3

H

3

2

,

2

4 I32, 20 J32, 26 K32, 24 L32, 19 M32, 16
B

3

3

,

2

0

C

3

3

,

2

3

D

3

3

,

2

1

E

3

3

,

2

2

F

3

3

,

2

3

G

3

3

,

2

4

H

3

3

,

2

5

J

3

3

,

2

7

K

3

3

,

2

5

L

3

3

,

2

0

A

3

4

,

2

2

B

3

4

,

2

1

C

3

4

,

2

4

D

3

4

,

2

2

E

3

4

,

2

3

F

3

4

,

2

4

G

3

4

,

2

5

H

3

4

,

2

6 I34, 21 K34, 26 L34, 21 M34, 17

A

3

5

,

2

3

D

3

5

,

2

3

E

3

5

,

2

4

H

3

5

,

2

7

J

3

5

,

2

8

K

3

5

,

2

7

M

3

5

,

1

8

B

3

6

,

2

2

C

3

6

,

2

5

F

3

6

,

2

5

G

3

6

,

2

6 I36, 22 K36, 28 L36, 22
A

3

7

,

2

4

B

3

7

,

2

3

C

3

7

,

2

6

D

3

7

,

2

4

E

3

7

,

2

5 I37, 23 J37, 29 L37, 23 M37, 19

A

3

8

,

2

5

B

3

8

,

2

4

D

3

8

,

2

5

E

3

8

,

2

6

F

3

8

,

2

6

G

3

8

,

2

7

H

3

8

,

2

8 I38, 24 K38, 29 L38, 24 M38, 20
B

3

9

,

2

5

C

3

9

,

2

7

D

3

9

,

2

6

E

3

9

,

2

7

G

3

9

,

2

8

K

3

9

,

3

0

M

3

9

,

2

1

E

4

0

,

2

8

G

4

0

,

2

9

H

4

0

,

2

9 I40, 25 L40, 25
C

4

1

,

2

8

D

4

1

,

2

7

E

4

1

,

2

9

F

4

1

,

2

7

J

4

1

,

3

0

K

4

1

,

3

1

L

4

1

,

2

6

A

4

2

,

2

6

B

4

2

,

2

6

C

4

2

,

2

9

D

4

2

,

2

8

E

4

2

,

3

0

G

4

2

,

3

0

H

4

2

,

3

0 I42, 26 J42, 31 K42, 32 L42, 27 M42, 22
C

4

3

,

3

0

D

4

3

,

2

9

G

4

3

,

3

1 I43, 27 K43, 33 L43, 28 M43, 23
B

4

4

,

2

7

C

4

4

,

3

1

E

4

4

,

3

1

G

4

4

,

3

2

H

4

4

,

3

1 I44, 28 K44, 34 L44, 29

B

4

5

,

2

8

C

4

5

,

3

2

F

4

5

,

2

8

G

4

5

,

3

3

H

4

5

,

3

2 I45, 29 J45, 32 K45, 35 L45, 30

A

4

6

,

2

7

B

4

6

,

2

9

C

4

6

,

3

3

E

4

6

,

3

2

F

4

6

,

2

9

G

4

6

,

3

4

H

4

6

,

3

3 I46, 30 J46, 33 K46, 36 M46, 24

node_present_probability: 0.65
observing_probability: 0.35
num_nodes: 13
num_levels: 46
cheat_prob: 0.25